

Message

From: Ma, Cissy [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=5216A636D3C14241B14C0748904D8DD0-MA, CISSY]
Sent: 8/31/2018 1:06:37 AM
To: [Citizen Name / Ex. 6] Garland, Jay [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=8344688361ec4461b89037afbf43f5aa-Garland, Jay]; Jahne, Michael [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=8d8f10dbff4a4294b02b51efbf0c1f61-Jahne, Mich]
CC: [Citizen Name / Ex. 6] /o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=user8589fcb0; [Citizen Name / Ex. 6] /o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=user813607cf]
Subject: Re: Draft AWG/Bottled Water LCA Results

Those ARE interesting results!

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From: [Citizen Name / Ex. 6]
Sent: Thursday, August 30, 2018 8:14 PM
To: Garland, Jay; Ma, Cissy; Jahne, Michael
Cc: [Citizen Name / Ex. 6] [Citizen Name / Ex. 6]
Subject: Draft AWG/Bottled Water LCA Results

Hi Jay, Cissy, Michael,

Attached are the draft AWG/Bottled Water Results (Excel) and associated study assumptions (pdf). I wanted to send these along before the full report, so we can discuss the key results to include, and whether we should run any additional scenarios. The results workbook is a dynamic calculator, so you can set your parameter of interest via the dropdowns in the green cells. Results are shown in a chart as a percent of maximum system impact per results' category. The color-coded results tables at the bottom show the percent contribution by life cycle stage. I have included the standard LCA categories for now, but we can filter these as needed.

| Parameter Description | Select Value | Instructions |
|--------------------------------------|--------------|--|
| Reusable Container Washing Method | Dishwash | Select "Dishwash" or "Handwash" |
| Jug Transport Distance | Average | Select "Average" if 75 miles, "Minimum" if 25 miles, "Maximum" if 125 miles |
| Single-serve Bottle Weight | Minimum | Select Minimum (2.3 g) or Maximum (12.9 g). Only lightweight options provided. |
| Single-serve Bottle Recycled Content | None | Select "0%" or "10%" |
| Recycling Allocation Method | Cutoff | Select "Cutoff" or "System Expansion" |
| Bottled Water Source | Spring Water | Select "Spring Water" or "Treated Municipal Water" |
| AWG Vendor | WaterGen | Select "WaterGen" or "Ecolobio" |
| AWG Water Production | Average | Select "Minimum", "Average", or "Maximum"; Function of relative humidity and temperature (See Table 1) |
| AWG Electrical Grid | Average US | Select "Average US", "RFCW", or "FRCC". RFCW and FRCC are eGRID subregions. |

In general, the AWG is dominated by electricity for operation and results in higher impacts than the bottled water/jug systems. I know I said it was looking to be lower on our last call, but we found a conversion issue during the QA process, which changed this. We have run three electrical grid scenarios, but not a scenario for a renewable option. We could add a solar PV scenario, which would likely drastically change the results (Watergen indicated they were still testing this, Ecolobblue does have a solar option). The single use bottled water is most sensitive to the weight of the packaging. The reusable jug is sensitive to transport distance of filled/empty jug to consumer and assumptions surrounding washing the reusable container used for drinking. We also included this reusable container washing for the AWG scenarios.

For the single use bottled water, we included just the lighter weight options (9.3-10.9 g), as these currently dominate the market. We could still include a heavier option. We could also run additional transport distances for the bottled water/jug if of interest.

I am out of the office tomorrow, but should we meet next week to discuss what scenarios to incorporate in the full report?

Thanks,

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